UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/735,147	12/12/2000	Ganesh Rajan	GIC-531	7254

20028 7590 11/26/2003	**EXAMINER**
LAW OFFICE OF BARRY R LIPSITZ	VO, TUNG T
755 MAIN STREET	

ART UNIT	PAPER NUMBER
2613	2

DATE MAILED: 11/26/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)	
Office Action Summary		09/735,147	RAJAN, GANESH	
		Examiner	Art Unit	
		Tung T. Vo	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)   4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5) ☐ Notice of Informal Patent Application (PTO-152)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *1* .   6) ☐ Other: .

DETAILED ACTION

Information Disclosure Statement

1.   The information disclosure statement (IDS) submitted on 12/12/00 has been considered.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United
States before the invention thereof by the applicant for patent, or on an international application by another who
has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention
thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999

(AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

do not apply when the reference is a U.S. patent resulting directly or indirectly from an

international application filed before November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA

35 U.S.C. 102(e)).

3.   Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Fleftheriadis et

al. (US 6,092,107).

Re claims 1, 13, and 14, Eleftheriadis et al. discloses a terminal for receiving and

processing a multimedia data bitstream (155 of fig. 2), comprising: a terminal manager

(110 and 225 of fig. 2); a composition engine (282 of fig. 2); a plurality of content

decoders (270, 271, 272 of fig. 2); and a presentation engine (284 of fig. 2); wherein said

content decoders (270, 271, 272 of fig. 2) recover and decode multimedia objects from

respective elementary streams of the bitstream; said multimedia objects comprising at

least one of video objects and audio objects for presentation in a multimedia scene (col.

6, line 46 through col. 8, line 9; e.g. MPEG-4 contains video and audio objects, AV

objects or information);

said composition engine(282 of fig. 2) recovers scene description information

from the bitstream that defines specific ones of the recovered multimedia objects that are

to be provided in the multimedia scene, and characteristics of the recovered multimedia

objects in the multimedia scene (col. 6, lines 37-42);

said terminal manager (225 of fig. 2) recovers object descriptor information from

the bitstream that associates said recovered multimedia objects with respective ones of

said elementary streams, and provides the recovered object descriptor information to said

composition engine (268 of fig. 2, col. 5, line 66 through col. 6, line 11);

said composition engine (282 of fig. 2) is responsive to said recovered object

descriptor information (268 of fig. 2) provided thereto and said recovered scene

description information for creating a list of said specific ones of the recovered

multimedia objects that are to be displayed in said multimedia scene (283, 175, 285 of

fig. 2); and

said presentation engine (284 of fig. 2) obtains said list from said composition

engine, and, in response thereto, retrieves the corresponding decoded multimedia objects

from said content decoders to provide data corresponding to the multimedia scene to an

output device (269, 283, 284, 175, 285 of fig. 2).

Re claims 2 and 15, , Eleftheriadis further discloses said composition engine and

said presentation engine have separate control threads (263, 215, 235, 260, 268, 269 of

fig. 2).

Re claims 3 and 16, Eleftheriadis further discloses said separate control threads

allow the presentation engine to begin retrieving the corresponding decoded multimedia

objects (283 and 284 of fig. 2, e.g. the renderer (284) retrieves the decoded multimedia

objects from the composition (283) while the composition engine (282 of fig. 2) recovers

additional scene description information from the bitstream (268 of fig. 2) and/or

processes additional object descriptor information provided thereto.

Re claims 4 and 17-18, Eleftheriadis further discloses said content decoders,

presentation engine and composition engine have separate control threads (260, 269, 268

of fig. 2).

Re claim 5, Eleftheriadis further discloses said characteristics of the recovered

multimedia objects in the multimedia scene include positions of said specific ones of the

recovered multimedia objects in said multimedia scene (the compositor (282 of fig. 2) positions

the decoded media relative to each other based on BIFS Scene Graph (and possibly user input)

and composes the scene, and this information is conveyed via line (283 of fig. 2) to the

Renderer (284 of fig. 2)).

Re claim 6, Eleftheriadis further discloses said recovered scene description

information is provided according to a Binary Format for Scenes (BIFS) language (225 of

fig. 2, The BIFS Decoder and Scene Graph).

Re claim 7, Eleftheriadis further discloses said multimedia data bitstream is

provided according to an MPEG-4 standard (col. 2).

Re claim 8, Eleftheriadis further discloses said composition engine maintains

scene graph information of a composition of said multimedia scene in response to said

recovered object descriptor information provided thereto and said recovered scene

description information for use in creating said list (col. 12, lines 10-40).

Re claim 9, Eleftheriadis further discloses said composition engine updates the

scene graph information, and said list, as required, for successive multimedia scenes in

response to subsequent recovered scene description information from the bitstream (col.

13, lines 5-15).

Re claim 10, Eleftheriadis further discloses said terminal manager (225 of fig. 2)

is responsive to user input events at a user interface (140 of fig. 2) for providing

corresponding data to said composition engine for modifying said scene graph, and said

list, as required.

Re claim 11, Eleftheriadis further discloses said composition engine (282 of fig. 2)

provides said list to said presentation engine according to a specified presentation rate (n the

category of user functionality, progressive, hot object, directional, trick mode and transparency

interfaces are specified. In the category of user authoring, a stream-editing interface is

specified).

Re claim 12, Eleftheriadis further discloses wherein said multimedia objects

comprise video and audio objects for presentation in the multimedia scene (AV object,

wherein the MPEG 4, col. 2, contains the AV objects), video and audio buffers (276, 277,

and 278 of fig. 2) for buffering the video and audio objects, respectively, prior to

presentation (284 of fig. 2); wherein said presentation engine reads objects from said list

and provides them to the appropriate one of said video and audio buffers (284 of fig. 2,

col. 6, lines 42-44).

4.   Claims 1-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Casalino,

F. et al. , "MPEG-4 Systems, concepts and implementation", Multimedia Applications,

Services and Techniques-ECMAST'98 Third European Conference Proceeds, Berlin,

Germany, 26-28 May 1998, pages 504-517.

Re claims 1-18, Casalino discloses the same terminal for receiving and

processing a multimedia data bitstream (fig. 3), comprising: a terminal manager

(Executive); a composition engine (Scene Graphic); a plurality of content decoders

(Decoder); and a presentation engine (Presenter T); wherein: said content decoders

recover and decode multimedia objects from respective elementary streams of the

bitstream; said multimedia objects comprising at least one of video objects and audio

objects for presentation in a multimedia scene; said composition engine recovers scene

description information from the bitstream that defines specific ones of the recovered

multimedia objects that are to be provided in the multimedia scene, and characteristics of

the recovered multimedia objects in the multimedia scene; said terminal manager

recovers object descriptor information from the bitstream that associates said recovered

multimedia objects with respective ones of said elementary streams, and provides the

recovered object descriptor information to said composition engine; said composition

engine is responsive to said recovered object descriptor information provided thereto and

said recovered scene description information for creating a list of said specific ones of the

recovered multimedia objects that are to be displayed in said multimedia scene; and said

presentation engine obtains said list from said composition engine, and, in response

thereto, retrieves the corresponding decoded multimedia objects from said content

decoders to provide data corresponding to the multimedia scene to an output device

(pages 509-510).

Casalino further discloses said separate control threads allow the presentation

engine to begin retrieving the corresponding decoded multimedia objects while the

composition engine recovers additional scene description information from the bitstream

and/or processes additional object descriptor information provided thereto; said content

decoders, presentation engine and composition engine have separate control threads; said

characteristics of the recovered multimedia objects in the multimedia scene include

positions of said specific ones of the recovered multimedia objects in said multimedia

scene; said recovered scene description information is provided according to a Binary

Format for Scenes (BIFS) language; said multimedia data bitstream is provided according

to an MPEG-4 standard; said composition engine maintains scene graph information of a

composition of said multimedia scene in response to said recovered object descriptor

information provided thereto and said recovered scene description information for use in

creating said list; said composition engine updates the scene graph information, and said

list, as required, for. successive multimedia scenes in response to subsequent recovered

scene description information from the bitstream; said terminal manager is responsive to

user input events at a user interface for providing corresponding data to said composition

engine for modifying said scene graph, and said list, as required; said composition engine

provides said list to said presentation engine according to a specified presentation rate;

wherein said multimedia objects comprise video and audio objects for presentation in the

multimedia scene, further comprising: video and audio buffers for buffering the video

and audio objects, respectively, prior to presentation; wherein said presentation engine

reads objects from said list and provides them to the appropriate one of said video and

audio buffers (pages 509-515).

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Inoue et al. (US 6,535,919 B1) discloses a verification of image data.

Yui (US 6,493,008) discloses multi-screen display system and method.

Yamao et al. (US 6,351,498 B1) discloses a robust digital modulation and demodulation

scheme for radio communications involving fading.

Contact Information

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Tung T. Vo whose telephone number is (703) 308-5874. The

examiner can normally be reached on 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chris. Kelley can be reached on (703) 305-4856. The fax phone number for the

organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 305-4700.

TUNG T. VO
PATENT EXAMINER

T.Vo

Tung T. Vo
Examiner
Art Unit 2613